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THE ZOOLOGIST:

A Monthly Journal

OF

NATURAL HISTORY,

FOR

RECORDING FACTS AND ANECDOTES

RELATING TO

QUADRUPEDS, BIRDS, REPTILES, FISHES AND INSECTS.

No. CCXCIX. or S. S. No. 8.

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JOHN VAN VOORST, PATERNOSTER ROW.

Price ONE SHILLING.

IN A FEW DAYS, PRICE TWELVE SHILLINGS,

A
DICTIONARY
OF
BRITISH BIRDS.

By EDWARD NEWMAN,

Editor of the 'ZOOLOGIST' and 'ENTOMOLOGIST.'

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1. In this work the whole of Colonel Montagu's 'Dictionary,' 'Supplement' and 'Appendix' are reprinted in a combined and alphabetical order, the words SUPPLEMENT and APPENDIX being prefixed to whatever is derived from these two sources. Nothing that Montagu has published is omitted or altered.

2. In no instance have I overlaid the original with my own notes and observations, or attempted to controvert the author's assertions because at variance with my own more limited experience; nevertheless in some few instances where subsequent writers have concurred in considering Montagu's descriptions to designate states of plumage rather than specific differences, I have added a note to that effect, thus:—[Solitary Thrush. This bird, thus carefully and minutely described, is now universally regarded as the young of the Common Starling].

3. Observation and discovery are incessantly at work: it is no more possible for our knowledge to remain stationary than for this earth to discontinue its rotation; hence the additions which Colonel Montagu found it necessary to make between 1802, the date of the 'Dictionary,' and 1813, the date of the 'Supplement': these additions, now incorporated, exceed the original work in bulk. In 1833 Mr. Selby published his 'Illustrations of British Ornithology,' and in this work twenty-four species unknown to Colonel Montagu were described. In 1843 Mr. Yarrell published the first edition of his 'History of British

[*Continued on 3rd page of Wrapper*

A Glance at a few Facts connected with Alpine Entomology.

By ALBERT MÜLLER, Esq.

> "It would be well if the collector of insects would devote at least a tithe of his energies to the speculative branch of his subject."—WOLLASTON, '*Variation of Species*,' 1856, p. 113.

SCARCELY a decennium has elapsed since Mr. Wollaston enunciated the above opinion, and few, if any, zoologists to whom the real advancement of their science lies at heart, will be found who would not gladly concur in the desirability of granting at least a limited sphere of speculative action to fellow-labourers in their own fruitful field, especially when reminded of what, for instance, geologists and botanists have accomplished in the same line; and if from any branch of Zoology, more than from another, it is from the study of the Insecta that we may confidently expect a rich harvest of facts bearing on most of the important questions so eagerly discussed at the present time, such as that of the Origin of Species, or, to select another, the distribution of living creatures over the earth's surface.

Various more or less plausible theories, although not yet too many, relating to these questions, have successively occupied almost everybody's attention, and even entomologists, than whom no other class of naturalists has been slower in filling the ranks of theorists, have at last been compelled to take, though grudgingly, their share in the general inquiry after "more light" on the above and other subjects of minor importance. But, to judge from certain criticisms lately published in the 'Zoologist' (S. S. 153), entomologists as a body, especially younger ones, seem already to have become such reckless speculators with the arguments at their command, and their deductions seem to be so crude and ill considered, as to merit unlimited disapprobation; at least, we are led to believe in such a state of things when we read the review of the 'Coleoptera Atlantidum,' where the entomologists of to-day are charged with "reaching conclusions without passing through the slow process of reasoning."

As it seems to me that this assertion does more particularly point to those who dare to advance opinions, without being at the time prepared with sufficient evidence to support them on all sides, it may not be out of place to call the impartial reader's attention to what Mr. Wollaston has already predicted in the work quoted above, when he says, "Certain it is that much would probably be advanced, at first,

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on slender premises, and would, as a consequence, fall to the ground, leaving no record behind it. Yet such must inevitably be the case at the outset in every region of inquiry; and we are prepared to expect it. It does not, however, follow that good would not be developed also, whilst we are confident of the fact that unless the trial be made it cannot possibly arise." (*Op. cit.* p. 113.)

This trial is still going on around us, and far from condemning its present unsightly features, we ought to hail it as the forerunner of a more universal spirit of inquiry amongst entomologists, which, once awakened, will soon find means to build its hypotheses on safer ground than can possibly be done at the present time. Meanwhile let us have patience, and not daunt by word or deed those of the younger school, who have, if not yet the knowledge, at least the good will to set to work in earnest, even at the risk of showing their shortcomings, when discussing questions, difficult even to the experienced amongst us.

I would fain have abstained from offering any comment on this subject, and indeed, were it not for the obvious reason that the following notes will, by the very nature of the topics touched upon, pretty nearly come under the head of speculations, I should not have expressed my views on a point which, however, has no doubt given some slight concern to more than one of the younger friends of Entomology.

But let us proceed to a more attractive subject than the foregoing.

In the midst of the European continent rises the mighty chain of the Alps, presenting everywhere its bold contours, and very indifferent indeed must the traveller be whom the sight does not tempt to linger in the neighbourhood of at least one of its snow-clad peaks. But let him possess the feelings of the lover of Nature, and allow him to roam through the valleys in their bosom, let him ascend to the higher pastures or wearily wade through snow-fields, let him cross a glacier or feast his eyes on the scenery around, and mark his expressions of joyous surprise—how new and unknown everything. Nor will a longer stay alter this opinion, for his daily walks will, on the contrary, confirm his first impression that even a lifetime would not be sufficient to get even a superficial knowledge of all the wonders he encounters at each step.

It is more particularly to the observer of insects that this truth is continually brought home, for when watching his little favourites for any length of time it is a source of constant attacks on his knowledge of their habits, as acquired by observation in lowlands, to see the total change in all the phases of insect life, brought about by the difference of external, especially climatical agencies. Species which elsewhere pass through their whole metamorphoses in one season, adapt themselves here to a series of such, more so in the *subnival* and *nival* regions, as if to prevent any wholesale waste of life, so often suddenly imperilled by changes in the weather. An Almighty hand has wisely provided that eggs, larvæ or pupæ will stand the severity of not only one but often several winters, before progressing to the next stage; but should an unusually fine and mild summer come on, a few weeks will further them more than entire seasons; imagos will come forth and enjoy the congenial sunshine, where, for years past, no sign of such could be detected; the yellowish grass plots on the upper mountain-ridges, now converted into green lawns, are, as it were, teeming with life, until a cold blast, or the lateness of the season restores to them the dreary dead look they bore for years before.

Nay, in this land of wonders even death seems to come sometimes in a peculiar form: all of us have read how the sharp, excessive cold of the snow region tempts man to give way to the sleep from which there is no awakening, and if we are to believe the testimony of those people whose lives have been saved, for instance, by the humane monks of the Great St. Bernard, there is something indescribably sweet in being thus lulled into eternal repose. The privilege of easy dying in the regions of eternal snow does, however, not seem to be restricted to man alone; at least some remarks further on seem to imply that insects, too, are in certain cases exempt from the terrors usually accompanying death; but, to state the case plainly, I must beg of the reader to reconsider the following facts:—

"At the meeting of the Entomological Society of London, held on the 3rd of April, 1865, the President, Mr. F. P. Pascoe, read the following note:—'Last July, when passing over the snow-fields on the top of Monte Moro, at an elevation of about 8000 feet, I noticed here and there a sharply-defined cylindrical hole in the snow, such as might have been caused by pressing a wine-cork into it. These holes were generally about an inch in depth, and at the bottom of each was either a small lump that looked like peat, or more frequently an insect, invariably either Dipterous or Ichneumonideous. I cannot account for the lumps of peat, but I imagine that the insects settling on the snow became torpid from its low temperature, and sank gradually (or perhaps rapidly) into it, the hole being caused by the radiation of heat from the insect. The solar rays on mountain summits are asserted to be warmer than those falling on the plains, but there is no doubt that the radiation from solid bodies at great elevations is very marked.' In reply to inquiries, the President added that the insects in the snow were all dark in colour, that the holes were on the slope of the mountain on which the sun was shining directly, and that they were truly cylindrical, not hemispherical or narrowed at the bottom. His explanation of the phenomenon did not meet with general acceptance; it was objected that radiation was scarcely likely to produce a cylindrical excavation, and Mr. A. R. Wallace doubted whether an insect of so small bulk and mass, and which could only give off by radiation the heat which it had first absorbed, was capable, even though of dark colour, of absorbing sufficient to produce the considerable melting of the snow around it which the President had described." (Zool. 9556).

Alpine Entomology has not yet enjoyed so much patronage as its more lucky sister-science, Alpine Botany, and as anything bearing on obscure points must, in a collected form, ever be welcome to future inquirers, I have not hesitated to repeat the above note *in extenso;* for the same reason, I think myself justified in adding the following more precise particulars, kindly furnished by Mr. Pascoe, to whom I beg to tender my sincere thanks.

This gentleman informs me that the date was the 7th of July, 1864, and he then continues, "I crossed the pass alone, and as it was nearly five o'clock P. M., before I got to the summit, I passed over the snow-fields as rapidly as my excessive fatigue permitted. The snow at that late hour was very soft, and, as you will easily understand, I did not devote so much attention to the 'small holes' as I should have otherwise done. I, however, did not say, the holes were 'numerous;' they were, *probably*. I saw about twenty, perhaps more. They occurred *chiefly* at about the stiffest part of the ascent, some 500 feet or so below the summit, which is said to be 8386 feet above the sea. All the insects I saw were Ichneumonidæ or Diptera, all limp and moist. I see on reference to my notes that I have mentioned a few Ephemeræ. As this was not repeated in my note read at the meeting, I suspect that I must have thought they had not been sufficiently made out at the time. Naturally very delicate, they might under the circumstances have been rather *guessed at* than satisfactorily determined. With regard to the holes in the snow, my first impression that they looked as if caused by a wine-cork being pressed half-way down into it again occurs to me as giving the most exact idea of their size and appearance, perhaps a trifle smaller, and, to be particular, a fresh cork, and not one that the wine has bloated with years of contact, was in my mind's eye. There were no dead insects to be seen lying on the snow; the only one I saw lying on it was still living: I suspect that these insects are only tempted to make such a lofty flight in the early morning, say nine o'clock A. M., and once on it, they are soon benumbed and then sink rapidly; some may have been in these holes for days, for at a certain depth, the insects being beyond the influence of the sun's rays, radiation would cease and they would go no lower: I may remind you also that plants and stones sufficiently near the surface erect for themselves hollows in the snow somewhat similar. Some of the large blocks of stone I saw with a kind of fosse, at least three feet deep, around them, and in their neighbourhood the snow was very soft and yielding. The time had been very hot and dry,—I think for weeks; and the slopes had a more or less northerly aspect, and were exposed to the sun until five o'clock P. M."

Having given full particulars of these valuable observations I now append the translation of a passage occurring in F. von Tschudi's 'Thierleben der Alpenwelt,' 1861, p. 465, which is intimately connected with Mr. Pascoe's investigations and my above remarks about dying in the snow region. F. von Tschudi says:—"Winged insects, which are often carried by the wind to the upper snow-fields, will sink into these sometimes two feet deep, and it has been observed *that these creatures settle voluntarily on the 'firn,'** extending their wings and limbs, and that they rest in this position at their ease without moving, it being probable that *they enjoy the absorption of the oxygen of the 'firn.'* If they are taken up and removed to a stone or a piece of wood, they will at once proceed to the 'firn,' where they extend themselves as if inebriated, and gradually sink in (seemingly) in full enjoyment. Dug out of a depth of two feet, they sometimes get lively again very quickly; otherwise, if left to themselves, they soon perish and at once get decomposed, and then the sinking in will cease. It has been tried to place dead insects on the 'firn,' when the body was found to swell up to a soft mass, then to shrink very much and afterwards to decay, after this the firn closed itself over it, which does not easily happen with living insects."

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* "Firn" is used to designate that peculiar state of snow, when the individual hard grains are firmly cemented together by an icy substance. A higher temperature will loosen this cement, without affecting the hard grains, and they will then readily separate, but at night they are again freezing together to a compact mass.—*Tschudi.*

Here, then, we seem to have the reason of the insects settling on the snow; in full enjoyment of life's most precious gift they drink the cup of death without tasting its bitterness, and, whether agreeing or not with the opinión that insects voluntary settle on the snow to absorb more oxygen, there will, I think, be no dissenting voice as to the singularity of this mode of dying.

The lumps of peat found in several of the holes are no doubt the sediment of the decayed bodies of these insects, perhaps increased in size by dust or fine sand, so often carried by heavy gales, not only over short distances or heights, but, according to the celebrated investigations of Professor Ehrenberg, over oceans and whole continents: in our case the dust was probably brought by the southern wind called "sirrocco" in Italy, and "fœhn" in Switzerland, which is known to carry very often a considerable quantity of fine particles of both organic and inorganic matter.

With regard to the holes in question, I see no sufficient grounds why they should not have been formed by the radiation of heat from the bodies of the insects, as a dark object, however small, will necessarily become the momentary receptacle of much warmth when placed on a white surface; and, to enlarge upon Mr. Pascoe's hint about plants and stones imbedded in the snow, I have only to remind the reader how, on fine afternoons in winter, every individual blade of grass sufficiently near the surface of the snow pierces it and forms, if not a hole, at least a marked, regular depression around itself, and how much larger is the surface of even a middle-sized insect than the tip of a blade of grass.

However, far from considering this last or any other point of the present case as being quite settled, I would, on the contrary, most urgently request tourists, especially members of the Alpine Club, to chronicle such phenomena as the above whenever they are met with; though seemingly of no importance when considered as isolated facts, they may hereafter be of much value to the student of Alpine Zoology in connection with other sciences.

Should occurrences simllar to those mentioned in this article be noticed again, I would suggest that a few of the following queries, should, if possible, be answered:—

At what altitude the observation took place.
The direction of the wind.
The state of the sky, whether clouded or bright.
What aspect.

To what orders the insects belong; or better, to carry away as many specimens as possible for future quiet examination.

To bring away some of the so-called peat, if such be again observed in similar holes.

And, as a general rule, to take nothing for granted, but to examine thoroughly.

The field of Alpine Entomology is as yet scarcely touched, and its wide extension calls for dilligent workers. Will no one enlist in this good cause?

ALBERT MÜLLER.

May 15, 1866.

PROCEEDINGS OF SOCIETIES.

ENTOMOLOGICAL SOCIETY.

May 7, 1866.—W. W. SAUNDERS, Esq., V.-P., in the chair.

Donations to the Library.

The following donations were announced, and thanks voted to the donors:—'Proceedings of the Royal Society,' No. 82; presented by the Society. 'Journal of the Linnean Society,' Vol. ix. Zool. No. 33; by the Society. 'Journal of the Royal Agricultural Society,' 2nd Series, Vol. ii. Part 1; by the Society. 'Tijdschrift voor Entomologie,' Vol. viii. Parts 5, 6; 2nd Series, Vol. i. Parts 1, 2; by the Entomological Society of the Netherlands. 'Stettiner Entomologische Zeitung,' 1866, Nos. 4—6; by the Entomological Society of Stettin. 'Die Neuroptera des Lithographischen Schiefers in Bayern,' Part 1; by the Author, Dr. Hagen. 'Synopsis des Agrionines, 5e légion: Agrion;' by the Author, M. E. de Selys-Longchamps. 'The Zoologist' for May; by the Editor. 'The Entomologist's Monthly Magazine' for May; by the Editors. Wood's 'Illustrations of the Linnæan Genera of Insects,' 2 vols.; Rennie's 'Conspectus of the Butterflies and Moths found in Britain;' Yeats' 'Institutions of Entomology;' Martyn's 'English Entomologist;' Marsham's 'Entomologia Britannica;' Huber, 'Recherches sur les Mœurs des Fourmis indigènes;' Schrank, 'Enumeratio Insectorum Austriæ indigenorum;' Duméril, 'Considérations générales sur la Classe des Insectes;' Sulzer, 'Die Kennzeichen der Insekten;' Klug, 'Monographia Siricum Germaniæ;' Barbut, 'The Genera Insectorum of Linnæus;' Schæffer, 'Elementa Entomologica;' by J. W. Dunning.

Election of Members.

Philip Green, Esq., of 11, Finsbury Circus, and W. Stavenhagen Jones, Esq., of 79½, Gracechurch Street, were severally ballotted for and elected Members.

Exhibitions, &c.

Mr. M'Lachlan exhibited some galls found on ground-ivy at Lewisham, supposed to be those produced by Aylax Glechomæ; these are, however, described as occurring singly, while those exhibited were in a cluster of four.

Mr. Bond exhibited a finely-marked variety of the female of Cabera exanthemaria, bred by the Rev. Mr. Horton, of Powick, near Worcester.

Mr. Newman sent for exhibition some larvæ of Hepialus lupulinus found in a heap of wet clay amongst the under-ground rhizomes of the common coltsfoot (*Tussilago farfara*), at Henlow, near Biggleswade, in April last: these larvæ were all dead, and remarkable as forming the pabulum of a fungus, probably a Sphæria, occupying the whole interior, and sending out its mycelia in all directions through the skin, while in some specimens a stout capitate column rose from the neck of the larva immediately behind the head, evidently the fructification of the fungus. This singular formation is figured in 'The Entomologist,' vol. iii. p. 75.

Mr. Stainton exhibited some Dipterous larvæ he had that morning received from Mr. Borthwick, Treasurer of the Natural History Society of Alloa: these larvæ were reported to be very injurious to the young wheat, destroying the main stem just above the root.

Mr. Saunders observed that some similar larvæ had been brought under his notice by one of his neighbours in Surrey, but that if the larvæ attacked the wheat when very young the result was simply the destruction of the main stem, and the plant put out an additional quantity of other stems, and no more injury was done to the crop than by pasturing sheep upon wheat when getting too luxuriant early in the season.

Mr. Stainton exhibited a number of drawings, made by Miss Wing, of the Micro-Lepidopterous larvæ he had collected during March in the South of France, at Cannes and Mentone, including Acrolepia Smilaxella of Millière, of which the larva fed on the leaves of the Smilax aspera; Hyponomeuta egregiellus, *Duponchel*, which fed on the Erica scoparia; a Gelechia (probably G. biguttella), bred from Dorycnium suffruticosum and D. hirtum; Coleophora congeriella, *Staudinger*, on D. suffruticosum; a green Depressaria larva on Genista spinosa, which, instead of producing a novelty, had yielded only D. atomella; Gelechia Psoralella of Millière on Psoralea bituminosa; an Elachista larva mining down a leaf of Carex, just as it might have been doing in England at the same period of the year; larvæ of the insect so injurious to the olives, and which Herr Kaltenbach, of Aix-la-Chapelle, had last year first correctly referred to the genus Prays, Prays oleellus being evidently, both in form, structure and even in marking, closely allied to Prays Curtisellus, whilst there was a great similarity in the habits of the larvæ, that of P. Curtisellus being as destructive to the shoots of the ash as that of P. oleellus to the shoots of the olive; also a drawing of a true gall formed on the shoots of Gypsophila saxifraga by a small Lepidopterous larva (probably of the genus Gelechia, but which had not yet been bred). Mr. Stainton observed that the only other instance of a true gall formed by a Lepidopterous larva was that formed by Asychna æratella on Polygonum aviculare.

Mr. Stainton also exhibited a drawing of a larva found on spindle in his own garden at Lewisham, the habits of which were very peculiar, inasmuch as these larvæ were found only where there was a bundle of the "frass" of last year's larvæ of Hyponomeuta Evonymellus resting on the twigs of the spindle; but wherever there was such a mixture of web and excrement left on the plant, one of these larvæ was to be found underneath feeding on the bark and even eating the wood of the spindle. The appearance and agility of the larva reminded him much of the genus Gelechia; and already were there three instances known in that genus ('Intelligencer,' Vol. vii.

p. 157) of larvæ which were only found as companions of other larvæ. The beauty and neatness of the drawing of Miss Wing elicited very general admiration.

Mr. E. W. Janson exhibited specimens of Throscus elateroides, *Heer*, a species not hitherto recognized as an inhabitant of Britain, captured, during the past month, by Messrs. J. A. Brewer and E. Smith, near Rochester, Kent, at the roots of herbage: he remarked that this species may be readily distinguished from its ascertained indigenous congeners by its bi-carinate forehead, grooved eyes and the thickly punctate interstices of the elytra, and submitted magnified drawings and the following concise diagnoses of the three species now known to inhabit Britain: he likewise stated that Dr. J. A. Power had recently taken this species in the same locality and under similar circumstances:—

"Genus THROSCUS.

I. Eyes with an oblique central groove in front only.

Sp. 1. *T. dermestoides*, L., Latr., Steph., Heer, Redtb., v. Kiesenw., de Bonv.
(Elater dermestoides, *L.*)

Forehead with two distinct parallel longitudinal ridges in front between the eyes, and a very short indistinct one between them.

Thorax scarcely perceptibly dilated at the sides in front of the posterior angles, finely and somewhat thickly punctate.

Elytra punctate-striate, all the striæ distinct; the interstices with two irregular series of sparsely disposed punctures anteriorly, which gradually assume the position of a simple row posteriorly.

II. Eyes with an oblique central groove running completely across them.

Sp. 2. *T. elateroides*, Heer, de Bonv.

Forehead with two fine parallel longitudinal ridges in front between the eyes.

Thorax conspicuously dilated at the sides in front of the posterior angles, finely and rather thickly punctate.

Elytra finely punctate-striate, the striæ next the suture obsolete; the interstices thickly and finely punctate.

The frontal ridges are, in some individuals, so faintly raised as to be distinguishable only in a good light and in thoroughly clean specimens.

Sp. 3. *T. obtusus*, Curt., Steph., v. Kiesenw., de Bonv.

Forehead convex, scarcely perceptibly punctate, and without the faintest trace of longitudinal ridges.

Thorax very short, and very much dilated at the sides in front of the posterior angles, sparsely punctate.

Elytra finely punctate-striate, the striæ next the suture usually very faint; the interstices somewhat thickly minutely punctate."

Mr. Saunders exhibited a singular conical nidus, which he considered to be that of a spider, from New South Wales, formed out of a single leaf, by a series of folds, so artfully contrived that the whole of the leaf was used up in its construction, producing a tent-like structure quite impervious to wet; the nidus was about half an inch in length and nearly the same in diameter at the base.

Mr. Saunders also exhibited two cases formed by the larvæ of some species of Œceticus (Oiketicus)?, about two inches in length, constructed of four series of small pieces of the culm of some kind of grass; these four series were of different lengths, increasing as the larvæ appear to have grown larger and required a more roomy habitation: in each series the pieces of culm were very nearly equal in size and length, and so arranged as to form a cylinder. These cases had somewhat the shape of a pocket-telescope drawn out to its full length: they were from New South Wales.

Mr. E. L. Layard said that he had obtained several species of these insects at the Cape, in Australia, and also in Ceylon; he had observed that the young larvæ when first hatched constructed their cases from the body of their parent: in one species the case of the larva when full grown was composed externally of sticks, much larger than the case itself, placed lengthwise, and this ornamentation was not added until the insect was full grown.

Mr. M'Lachlan observed that the fact of young larvæ of case-bearing species employing the body and case of the female parent, as materials for their own cases, had been noticed by Réaumur; and he had himself seen it done by our British species of Fumea.

Mr. Haward exhibited some Coleoptera and other insects of various orders from Natal.

Mr. E. L. Layard called the attention of the Society to the fearful ravages of a species of white ant at St. Helena: it is a small slender species, having very long jaws, and he believed specifically distinct from any which he had seen in Ceylon or at the Cape of Good Hope; it was introduced into the island about twenty years ago, in timber from the West Coast of Africa, but its ravages had only become serious within the last ten years; at the present time James Town might be said to be devastated by it, the whole of the cathedral was destroyed, and indeed everything in the town made of wood was more or less injured; the library was also destroyed by them, and it was noticed that the theological works were eaten first, which he (Mr. L.) attributed less to the fact that the insects studied divinity, than to these books not being so often consulted by the reading public as novels and lighter works, and the insects therefore less disturbed in their work of destruction. Teak seemed to be the only wood they did not eat, but they would freely bore holes through it in order to get at other kinds more suited to their tastes: this fact had been proved, by placing a deal plank between two pieces of teak, when the latter were perforated and the deal devoured. They might even be said to make their way through tin cases, for in the Government stores it was found that their moist frass on the outside of such cases caused rapid oxidization of the metal, which enabled the insects to make their way in and devour the contents. He believed that unless some effectual remedy could be provided it would ere long be impossible to use timber on the island for any purpose; any one who could suggest such means would confer a vast benefit on the inhabitants. The ravages of the insect were at present confined to James Town, but might spread all over the island at any moment, and even reach vessels in the roadstead in firewood, or by other means, and be carried to the Cape, Ascension or elsewhere: it was a subject for serious consideration; the injuries already done to the Government buildings, &c., would necessitate an outlay from the public purse of many thousand pounds.

The Secretary mentioned that in December, 1863, a communication had been addressed to him by the Secretary of the Admiralty, with reference to the depredations committed at James Town by the white ants. See 'Proceedings' 1863, p. clxxxv. Mr, Bates, Mr. Wallace, and the late General Hearsey had subsequently addressed to him various practical suggestions, the whole of which were incorporated in a letter which on the 2nd of February, 1864, he had forwarded for the information of the Lords Commissioners of the Admiralty.

Mr. Layard also remarked that at the Cape of Good Hope wild bees were exceedingly abundant, and as the natives appeared to be quite indifferent to the stings of these insects, they dug up the nests and consumed the honey with perfect impunity: in the plains the nests were usually found in those of the white ants, which had previously been ravaged by the anteater, in the hills, in holes and caverns. He had always understood that the cause of the swarming of bees was want of room in the hive or nest; he had, however, noticed that in the caverns above mentioned the nests threw off swarms, and want of room could not be the cause in those cases.

Mr. Tegetmeier observed that the Scotch plan of providing additional room, by placing a box hive containing a strong stock between two empty ones, usually prevented the swarming in this country, the bees availing themselves of the increased accommodation instead.

Mr. Layard said that both this and Nutt's system had been tried by himself and Mr. Corless, the most experienced bee-master at the Cape, and had failed. Mr. Corless had lately constructed a hive in sections, so that each comb could be removed and examined with the bees *in situ;* they hoped on his return to be able to settle some vexed questions by the aid of this observatory, and their observations should be communicated to the Society.

Papers read.

The Rev. Douglas C. Timins communicated a paper entitled "Notes of collecting at Hyères (Var)."

Mr. Desvignes sent a paper entitled "New British Ichneumonidæ," containing descriptions of 39 species of Gravenhorst's genus Tryphon.

New Part of 'Transactions.'

Tr. Ent. Soc. third series, vol. v. part 2, containing the Prize Essay "On Ailanthiculture" by Dr. Wallace, and being the second Part for 1866, was on the table.—*J. W. D.*

Description of Helix lamellata.—As I have never found a detailed description of this animal in print, I here give the characteristics of a specimen which I took alive a few days ago at Scarborough:—Body rather short, tapering behind, nearly white; back dotted with slate-gray, specks denser at the sides, and so forming two conspicuous but undefined gray lines reaching to the base of the tentacles. Upper tentacles long but tumid, slightly constricted near the middle, bluish gray, darkest at the base. Lower tentacles light gray, two-fifths of the upper ones in length; space between them white. Foot white, slender, obtusely pointed behind. The creature walks with a quick shambling gait, the shell rolling from side to side, as though the contractions took place on alternate sides of the foot. The effect on the shell is very pretty in a strong light, causing the lamellations to flash with a silvery hue at each movement.—*Charles Ashford; Grove House, Tottenham.*

Xantho florida in Mount's Bay.—I took a fine specimen of Xantho florida in Mount's Bay, on the 12th of May, in about eight fathoms water. Well inshore the crab is not, as I read, reputed rare; but this is, nevertheless, the first specimen of it I have seen in Mount's Bay in the course of upwards of twelve years' acquaintance with the place.—*Thomas Cornish.*

Spider or Mouse.—In reply to Mr. Clogg's remarks (S. S. 106) possibly what I saw in the cave at Ilkley may have been the work of both spider and mouse: I cannot, however, think a spider was the principal agent. It may be difficult to set bounds to the appetite of a spider, but it is incredible that any British species could have so absolutely devoured hundreds of large Noctuæ as to leave no trace of their bodies; but, even granting the capacity of the spider, it is most improbable that such large numbers of Noctuæ should in the course of a few days have come within his reach by taking refuge in a recess, in which, although carefully searched on many subsequent occasions, I was never able to find a living moth. I say within a few days, for the freshness of the wings, and the fact that they all belonged to species on the wing at the time, was good evidence of their very recent death. The web was only about a foot square, and totally incompetent for the amount of work required by Mr. Clogg's explanation; there were enough wings in the corner of the cave to cover it three or four deep. Very few of the wings were under the web or near it at all; the principal deposit was fully two feet distant, nearer the entrance—just where a current of air would not deposit them, and in such a recess as one might suppose a mouse would select to dine in: what else he was doing when he came to grief in my trap I do not know, and Mr. Clogg does not suggest. Beyond the fact of having hung his web in a suspicious locality, there seems no case whatever against the spider, who, by the way, was not even seen, much less caught, like the mouse, and although executed first and tried afterwards, I still think the real culprit has suffered.—*Edwin Birchall; Bradford, May* 16, 1866.

A List of Birds observed at Sealkote, in the Punjaub.

By Major NORGATE.

SEEING in the 'Zoologist' that you state you would be glad to receive any communications about birds from any ornithologist, although not styling myself by that learned title, I send you a list of the birds found in the station and district in which I am at present a resident, and which I have the opportunity of observing; no inconsiderable number either, as you will perceive. I have always taken great interest in the study of birds and their habits, both at home and in this country, and consequently feel a sympathetic interest in those who are fond of the study.

LIST OF BIRDS FOUND IN THE SEALKOTE DISTRICT, PUNJAUB.

Tawny Eagle (*Aquila fusca*).
Brown Vulture (*Vultur monachus*).
Large Black Vulture (*Otogyps calvus*).
Brahminee Kite (*Neophron percnopterus*).
Kite (*Milvus indicus*). Sometimes called also the Brahminee kite.
Merlin (*Falco æsalon*).
Blue Harrier (*Circus cyaneus*).
Kestrel (*Tinnunculus alaudarius*).
Marsh Harrier (*Circus æruginosus*).
Sparrow Hawk (*Accipiter nisus*).
Large Brown Wood Owl (*Syrnium indranee*).
Barn or White Owl (*Strix flammea*).
Grass or Jungle Owl (*S. candida*).
Brown Owlet (*Noctua perlineata*).
Raven (*Corvus corax*).
Black Crow (*C. corone*).
Rook (*C. frugilegus*).
Indian Crow (*C. indicus*).
Jackdaw (*C. monedula*).
Common Minah (*Acridotheres tristis*).
Pied Minah (*Pastor roseus*).
Brown Thrush (*Geocichla unicolor*).
Starling (*Sturnus vulgaris*).
Golden Oriole (*Oriolus aureus*).
Chestnut-coloured Minah (*Acridotheres fuscus*).
Indian Cuckoo, Korleah (*Cuculus niger*).
Cuckoo (*C. canorus*).
Blue Rock Pigeon (*Columba livia*).
Tawny Dove.
Ground Dove.
Small Ground Dove.
Alexandrian Parrokeet (*Palæornis Alexandri*).
Hill Parrokeet (*P. torquatus.*)
Roseheaded Parrokeet (*P. rosa*).
Large Black and White Woodpecker (*Picus major*).
Small Black and White Woodpecker (*P. cathphanus*).

Crimson-breasted Barbet (*Xantholama indica*).
Wryneck (*Yunx torquilla*).
Wall Creeper (*Certhia muraria*).
Hoopoe (*Upupa nigripennis*).
Indian Jay, Roller (*Coracias indica*).
Black and White Shrike.
Small Black and White Shrike.
Large Chestnut-coloured Shrike (*L. erythronotus*).
Small Chestnut-coloured Shrike.
Common House Sparrow (*Passer domesticus*).
Jungle Sparrow (*P. pyrrhonotus*).
Goldfinch (*Carduelis caniceps*).
Gray Linnet.
Bier Bird (*Ploceus baya*).
Black Robin (*Thamnobia fulvata*).
Barwinged Robin (*Pratincola caprata*).
Magpie Robin (*Copsychus saularis*).
Redstart (*Ruticilla phœnicura*).
Pied Flycatcher (*Erythrosterna macula*).
Black and Crimson Flycatcher.
Blue Flycatcher (*Cyornis unicolor*).
Black and Orange Flycatcher.
Black Flycatcher (*Hemichelidon fuliginosus*).
Larger Bee-eater (*Merops viridis*).
Chestnut-neck Bee-eater (*M. quinticolor*).
Small Green Bee-eater (*M. Philippensis*).
Rocket Bird.
Bulbull (*Pycnonotus pygmæus*).
Large Bulbull (*Hypsipetes psaroides*).
Willow Wren.
Yellow Willow Wren.
Snap Bill.
Ground Runner—Brown Bubbler (*Malacocircus griseus*).
Blue Titmouse (*Parus cinereus*).
Blackheaded Titmouse (*P. ater*).
Humming Bird (*Arachnechthra asiatica*).
House Martin (*Chelidon urbica*).
Gray Martin (*Cotyle sinensis*).
Chestnut-throat Martin (*Hirundo daurica*).
Small Swift (*Cypselus affinis*).

Swallow (*Hirundo rustica*).
Nightjar (*Caprimulgus indicus*).
White Wagtail (*Motacilla alba*).
Yellow Wagtail (*M. sulphurea*).
Whinchat (*Saxicola rubetra*).
Wheatear (*Saxicola œnanthe*).
Sky Lark (*Alauda galgula*).
Ground Lark.
Grasshopper Lark.
Avidevat.
Black and White Fantail (*Leucocerra fusciventris*).
Corn Quail (*Tetrao coturnix*).
Rain Quail (*T. pluvialis*).
Bush Quail.
Button Quail (*T. parvissima*).
Adjutant (*Ardea gigantea*).
Sarrus Crane (*Grus Antigone*).
Koolung (*G. cinerea*).
Black Curlew or Ibis.
Grey Curlew (*Numenius arquata*).
Whimbrel (*N. phæopus*).
Indian Peewit (*Vanellus indicus*).
Gray Plover (*Squatarola cinerea*).
Chestnut Plover.
Snippet.
Redlegged Godwit (*Tringa cinclus*).
Greenlegged Godwit.
Heron (*Ardea major*).
Egret (*A. alba*).
Stilt Plover (*Charadrius himantopus*).
Paddy Bird.
Brown Heron (*Ardea flava*).
Full Snipe (*Scolopax gallinago*).
Painted Snipe (*S. picta*).
Jack Snipe (*S. gallinula*).
Small Bustard (*Otis parva*).
Pelican (*Pelicanus Onocrotalus*).
Gray Goose (*Anas Anser*).
Brahminee Duck (*A. rufa*).
Mallard (*A. boschas*).

Widgeon (*A. ferina*).
Pintailed Duck (*A. caudata*).
Smew (*Mergus albellus*).
Pintailed Teal (*Dendronessa caudacuta*).
Redeyed Duck.
Yelloweyed Duck (*Anas clangula*).
Redbill Duck (*A. rubila*).
Summer Teal (*Dendronessa sponsa*).
Merganser.
Goosander.
Chestnutheaded Duck.
Blackheaded Duck (*Anas nigra*).
Canvass-back Duck.
Shoveller (*A. clypeata*).
Teal (*A. crecca*).
Chinese Teal.
Spoonbill (*Platalea leucorodia*).
Common Coot.
Small Diver.
Small Waterhen.
Shag (*Plotus africanus*).
Blackheaded Tern.
Ashcoloured Tern.

W. NORGATE.

Sealkote, Punjaub, India.

Ornithological Notes from Shetland. By H. L. SAXBY, M.D.

(Continued from S. S. 215.)

MARCH, 1866.

Golden Plover.—The hard weather at the beginning of the month immediately brought the golden plovers from the hills. They are now abundant in most low grounds, and at night may be met with in ploughed fields and even in gardens.

Iceland Falcon.—Several examples of this rare species appeared early in the month, after a strong N.W. wind. On the 3rd a fisherman, who was shooting in the Island of Balta, observed one sitting upon a large stone, and, as it appeared quite careless of his presence, he walked up very leisurely and shot it. An hour afterwards he brought it to me under the belief that his prize was a snowy owl. It was a female in very good condition—a little too good, indeed, for I experienced no small difficulty in separating the thick layers of fat from the skin. The crop was fully distended with small pieces of flesh, and in the stomach was a large mass of flesh and rabbits' fur, but, with the exception of a few pieces of ribs, there were no bones. The largest of the ova were the size of No. 8 shot. Some fur was still adhering to the claws of both feet. The following description was taken down immediately after the bird came into my possession, and before the skin was removed:—

Whole length	26 inches.
Wing from carpal joint to tip . . .	16½ „
Bill from front to tip	1⅔ inch.
Tarsus	2¼ inches.
Middle toe and its claw	3⅙ „

Bill.—Cere and upper mandible very pale blue, the tip nearly black, the angular projection or "tooth" sharp and prominent; lower mandible nearly white, the anterior portion of its cutting edge brownish. A few days after death the bill begins to turn pink, and afterwards becomes reddish brown.

Iris nearly black; the bare skin surrounding the eye pale flesh-colour.

Head white, the central line of most of the feathers nearly black; these marks are smallest upon the sides of the head, and very few in number about the base of the bill.

Upper Surface.—Upper half of the back of the neck marked in the same manner as the top of the head, but with the streaks larger and of a browner hue; feathers of the lower half of the back of the neck, and also those covering the back itself, dark grayish brown, bordered with white, the concealed portions lighter in colour and patched with white, the shafts nearly black; upper tail-coverts and scapulars nearly the same as the parts just described, but the tail-coverts have the pale margins broader, and the white patches larger, and in the scapulars those nearest the tail have the white so far encroached upon by the brown as to cause an irregular barred appearance. Many of the feathers of the upper surface, especially those about the neck, have some portion of the white border tinged with brown.

Wings.—Second quill longest, its tip when the wing is closed reaching within three inches of the end of the tail; first quill half an inch shorter than the third, first two slightly cut out near the end of the inner web: lesser coverts very similar to the back; greater coverts white, irregularly barred with light grayish brown; first primary white, marked with dark grayish brown upon each side of the shaft; towards the tip of the inner web the brown projects into the white in a slightly bar-like form; remaining primaries the same, but with the brown occupying more space, and that on the outer webs gradually becoming more distinctly spotted with white on those feathers nearest the body; in these the white has a faint rusty tinge; the tips of all white, narrowed on the outer ones, the shafts dark brown. Secondaries and tertials white, barred with grayish brown; *in some the bars are continuous across the feather, in others alternate;* under wing-coverts white, with a few long fine streaks of very dark brown.

Tail.—Upper surface of the shafts white towards the base, dark brown on the remaining part, the under surface white throughout the whole length; middle pair of feathers white, each with eleven bars of dark grayish brown, the one nearest the tip considerably lengthened out along the shaft; *on the feather belonging to the right side the bars are continuous, on the left one all are alternate except the two nearest the tip;* next feather on each side barred on the basal two-thirds of the outer web, and with some irregular brownish mottlings upon the outer edge; in the remaining feathers the bars become more and more reduced to spots, except in the outer one of each side, where they again become lengthened out, and show a disposition to spread across the inner web.

Under Surface.—Chin, throat and upper half of the front of the neck white; abdomen, under tail-coverts and under side of the tail also white; remainder of under surface white, with dark brown sagittiform spots, much elongated and few in number upon the sides, rather more numerous, shorter and paler on the middle of the breast, shortest and broadest on the lower part and sides of the neck and on the sides of the breast.

Legs and Feet.—Tibial feathers white, with a few dark brown streaks on the outer side; these feathers are so long that when the leg is stretched out in the same line with the body they reach beyond the insertion of the toes; tarsus bare posteriorly, covered with white feathers on two-thirds of its length anteriorly; feet and bare part of tarsus pale bluish gray (drying to pinkish brown); claws very dark horn-colour, but not black.

I have endeavoured to describe the above specimen as minutely as possible, under the belief that the particulars may be of use to those ornithologists who feel interested as to the distinctions between Falco islandicus and F. grœnlandicus. My own experience in the matter is so slight as to be unworthy of notice, but I cannot avoid looking with some doubt upon the disposition of the bars as a guide, seeing that in the present example they are both continuous and alternate, not only in the same group of feathers, but even upon the same feather. I should be glad to learn more respecting the usual colours, at different ages, of the bill, feet and bare parts about the head. A much darker bird of the same species remained in this neighbourhood for some days, and I also saw a third, closely resembling the one above described, flying above some pigeons as they sat upon the corn stacks at Buness. It wheeled about them for some time, as if endeavouring to make them take wing, occasionally making a sudden stoop, but never attempting to strike. The flight was exceedingly rapid; a few quickly repeated beats with the wings seemed to be all that was required to create an impetus sufficient to carry it for several hundred yards.

Golden Eagle.—Various reports, all more or less exaggerated, have reached me concerning an enormous bird which has been seen in the island of Balta during the last few weeks. Unfortunately I have been unable to visit the spot, but there can be no doubt that the bird is a golden eagle. It is said to have killed a great number of rabbits.

Turnstone.—Turnstones are now abundant. A few days ago I watched them pushing over with their bills large pieces of sea-weed, which had been left by the tide, and also removing pieces of shells and stones, in order to procure anything in the shape of food lying beneath.

Woodcock.—On the 14th I saw a woodcock crouching among the deep snow upon the Hill of Colvidale: I was within two paces of it before it took wing.

Ringed Plover.—On the same day I first heard the spring note of ringed plovers, and observed that the birds were pairing.

Wild Duck.—A male of this species, shot on the 16th, already had a few pale brownish feathers about the head and neck; hitherto I have never observed the commencement of the change of plumage earlier than the middle of May. The stomach contained sand, shells, sea-weed and potatoes; some of the latter were still whole, and one of them was a little more than an inch in diameter.

Redbreasted Merganser.—The flocks of redbreasted mergansers are slowly breaking up. At this season I very often observe solitary males basking upon the rocks or in small quiet bays. The small flocks which now remain seem to be chiefly composed of adult females and last year's birds.

Oystercatcher.—On the 19th I saw the first oystercatcher upon the rocks off the south point of Baltasound. It seemed to be much fatigued, and remained near the same spot for two days, when other individuals arrived. The latter were comparatively fresh, having come with fine weather, but the first one reached the island in the middle of heavy rain and a gale from S.W.

Lapwing.—The arrival of the lapwings escaped my notice this year; however, on the 16th I saw several pairs at their breeding-grounds.

Peregrine Falcon.—Two peregrine falcons have been frequently seen in the Burrafirth Cliffs during the last fortnight, as if with the intention of breeding there. A man who took three eggs of this species near the same spot, a few years ago, states that he found them lying upon a narrow rocky ledge, without any nest. Last week I was walking across the wet meadows at Upsal, the lapwings mobbing me in their usual manner, when suddenly their cries ceased, and most of them flew off in a hurried manner, as though alarmed; immediately afterwards I saw a peregrine make a stoop at one of their number and miss it, the lapwing having risen to avoid the blow. The pursuer instantly changed his course, and appeared to have given up the chase, but he was only making the usual sweep in order to get above his victim, who had now performed a similar manœuvre, and was high in the air among his companions. Contrary to my expectation, the falcon passed among them without bestowing the smallest notice; then he soared high above, stooped at the same bird, missed as before, and describing a wide circle, made a third and equally unsuccessful attempt. After several repetitions of nearly the same scene, the only difference being that the flock had by this time left their persecuted friend to himself, the latter began to exhibit signs of fatigue: the falcon, making wide sweeps, ascended with comparatively little exertion, while the lapwing, although able to rise more perpendicularly, soon found to his cost that such a mode of flight was far too trying for long continuance; accordingly, like a bullied witness in a court of justice, he suddenly threw off all attempt to outmanœuvre, and too late sought safety in honest flight. Poor inexperienced fellow! the attempt to combat his skilled antagonist upon equal terms was now bringing down the reward of presumption. Down came the learned sergeant—I mean the peregrine: in a few brief moments the victim was dashed to the earth, and I being no better than my fellow men, in my admiration of the skill of the victor, overlooked for a time the cruelty of the deed. Peregrines sometimes devour their prey upon the spot where it falls, but I think it is more usual to carry it away to some favourite mound or rock, so situated that no enemy can approach during the meal without being seen in time to prevent a surprise. Near one of these rocks, which had apparently been used as a feeding-place for many weeks, I discovered the remains of no less than ten species of birds, *viz.* golden plovers, ringed plovers, lapwings, curlews, puffins, wild ducks, purple sandpipers, common, herring and lesser blackbacked gulls.

Raven.—Ravens were seen working at a nearly finished nest on the 23rd.

Hooper.—On the morning of the 24th a gale from S.W. brought twenty-eight hoopers. They flew quite low, uttering their usual cries.

Heron.—Herons are now leaving us. The rough weather and hard frosts have caused many deaths among them. Several have been picked up in a dying state far inland, and some days ago I found the remains of two upon the beach at Hammer.

Herring Gull.—Herring gulls began to pair about the end of the month.

Sky Lark.—Sky larks have been in full song during the whole of this month. Even the heaviest snow-storms have not been able to silence them.

Snow Bunting.—The snow buntings, although so abundant in February, nearly all left us as soon as the bad weather commenced.

HENRY L. SAXBY.

Baltasound, Shetland, March 31, 1866.

Ornithological Notes from North Lincolnshire.

By JOHN CORDEAUX, Esq.

(Continued from S. S. 260.)

MAY, 1866.

Whimbrel.—Very considerable flocks of these birds arrived in the Humber district on or about the 3rd of May, on which day I observed a flock of not less than two hundred fly over from the flats into the grass marshes. I have before remarked in the 'Zoologist' that whimbrels visit this neighbourhood in much larger numbers during their northern vernal migration than when returning southward in the autumn. At this latter season they probably pass over this district without alighting, as in August and September they may frequently be observed in small parties, numbering eight or ten birds, very rarely exceeding these numbers, and never in large flocks, passing over the village and proceeding in a south or south-westerly direction: they then invariably fly at a great height, and keep constantly repeating their peculiar call-note, without which it would be impossible to identify them.

Dotterell.—In years gone by the month of May, in the North Lincolnshire marshes, was invariably marked by the advent of flocks of dotterell. From some cause or other, however, their numbers have gradually decreased, and previous to this spring four or five years have elapsed without my seeing even a single bird of this once well-known species in our marshes: this year they have returned to their old haunts. On the 2nd of May I observed two, a male and female, on the grass lands; they were exceedingly tame, permitting a very near approach, not even taking flight when I stood to have a look at them. On the 9th, in the same neighbourhood, I saw a flock of ten. On the 11th another flock, numbering fifteen, and on the 16th one containing nine birds. Dotterell are never seen in this district at any period except the month of May, and formerly they arrived with great regularity during the first week in this month, tarrying awhile amidst the solitudes of our marsh-land preparatory to resuming their journey northwards. All the flocks of these birds seen by me this year were exceedingly tame, and, had I been so inclined, could readily have walked up within shot. This indifference to the approach of man may possibly, in a great measure, account for their gradual decreasing numbers. Perhaps some reader of the 'Zoologist' will kindly inform me if dotterell are still met with in any numbers in other parts of England? I find they are seldom mentioned in the 'Zoologist.' When feeding, these birds have a habit of elevating their wings over their back, and they will thus frequently betray their position to the gunner, when otherwise they might probably have escaped detection. Both the gray and golden plover have the same peculiarity. Dotterell, when on the wing, fly very closely together, and keep constantly repeating their wild and musical call-note, which somewhat resembles the cry of the ringed dotterell.

White Wagtail.—May 5th. Observed this afternoon a bird of this species on the "fitties;" it is the only one I have seen this year.

Golden Plover.—Put up a solitary bird in the marsh on the 14th.

Swift.—Noticed the first swifts hawking over the marshes on the 14th, just seven days later than last season. The extraordinary backwardness of the spring and the bitter east winds appear to have driven them away again, as I have seen none in their usual haunts during the last fortnight.

Blackbird.—Found a blackbird's nest to-day, May 14th, containing three eggs, built in a most unusual situation, namely, amidst the rank aquatic vegetation of a bog in our low grounds: the most conspicuous plants in this spot are some sedges standing three to four feet above the surface: the nest was placed in a slight cavity in the matted root of one of these isolated sedge columns, and only elevated a few inches above the wet and spongy ground, the long drooping wire stems of the sedge completely concealing it from all but the most careful search. I was looking at the time for a waterhen's nest, and by the merest chance came upon the blackbird's nest, so carefully was it concealed. The only trees or bushes in the immediate neighbourhood were a few stunted alders.

JOHN CORDEAUX.

Great Cotes, Ulceby, Lincolnshire,
May 31, 1866.

Ornithological Notes from the County Dublin.
By HARRY BLAKE-KNOX, Esq.

(Continued from S. S. 227).

JANUARY TO JUNE.

Dates of the Singing of Birds for the Spring of 1866.—Blue Tit made the "sawset" note from the 13th of January. Missel Thrush, from the 8th of January. Sky Lark, from the 19th of January. Song Thrush, more frequently heard. Gold Crest, from the same date; imperfectly. Wren, from the 21st of January. Hedge Accentor, from the 10th of February. Blackbird, same date. Chaffinch, sang from the 21st of February; made its breeding-notes, "wheep wheep," from the 27th of March. Meadow Pipit, sang in the air from the 9th of March; made its breeding-note from the 27th of that month. Yellow Bunting, March 9th. Common Bunting, April 3rd. Willow Wren, April 12th. Stonechat, singing in the air March 26th. Corn Crake, from the 14th of April. Wheatear, singing in the air, same date. Cuckoo, from the 20th of April. Whitethroat, from the 17th of May. Linnet, from the middle of April. Redpole, from the end of that month. Snipe, from the same time. Robin, from the beginning of the year. Blackcap Warbler (the only time I ever heard it in Ireland), May 17th. Greenfinch, from the 20th of April. Quail, from the middle of March. Swallow, from the 12th of April. Martin, from the 19th of May. Grasshopper Warbler, May 5th.

Arrival of Summer Migrants.—Lesser Blackbacked Gull, appeared scantily from the 27th of February; abundant from the end of March. Razorbill, arrived in flocks from the middle of March. Guillemot, arrived from early in April. Kittiwake Gull, from the end of March. Shearwater, from the 29th of March. Common Bunting, from the 3rd of April. Chiffchaff, saw (but not heard) this year on the 5th of April. Wheatear, April 6th. Corn Crake, April 11th. Willow Wren, April 12th; immense flocks on the 14th. Gannet and Swallow, April 12th. Cuckoo, April 20th. Martin, at Ball's Bridge on the 27th of April (on the skirts of the city, and about six miles from Dalkey): not seen till the 19th of May at Dalkey. Common Sandpiper, May 2nd. Arctic Tern, April 19th. Grasshopper Warbler, May 5th. Whitethroat, Rosy Tern and Puffin, May 17th. Swift, May 12th; in numbers on the 17th. Common Tern, May 20th.

Glaucous Gull.—On the 29th of January I decoyed a young glaucous gull to my boat. I had a beautiful view of it as it stooped and wheeled about me, picking up the pieces of liver I threw to it.

Sparrow.—On the 10th of February I shot what I thought a black sparrow, and indeed so he turned out, but in a way that I did not expect; he was begrimed with soot. May not this account for many of the "black sparrows" seen? While writing on sparrows, I may mention another kind of variety not unfrequently seen about here since raddle has come into fashion to colour bricks with—*viz.* red sparrows. I must acknowledge that I did start on first seeing a red bird hopping on the road; but, unlike Mr. Pickwick, I did not draw out my tablets till I had sought a closer view, or else I might have informed the readers of the 'Zoologist' of a strange bird, evidently of the finch family. The sparrow builds in such strange places that a dirty coat is of no unusual occurrence, and then, being a pulverizer, and using water so seldom, the consequence would be obvious, if he went to free himself from vermin in dry raddle or soot.

Gray Wagtail.—From the beginning of March the gray wagtail begins to assume the black throat: I never knew this colour assumed otherwise than by a distinct moult. In some individuals the patch is lead-colour, and in all cases in perfect plumage the feathers are fringed with white: this white fringe is fickle, and generally lost in May, the throat then being entirely black. This disappearance of the white fringe has given rise to the statement that the feathers change by transmutation; it is not so: neither does the fringe turn black, but distinctly wears off, and is only the nuptial dress. Yarrell, in his admirable plates, gives too large a patch of black to agree with our Irish bird. Neither does the yellow of the adult male grow more intense in summer than it has been in winter; my experience teaches me quite the reverse, and that the older the male the whiter the breast and sides become, the back assuming a pure unmixed hoary gray, and the wing-quills growing much darker than either the female or the male of last year. The same remarks as to intensity of colouring apply to the wheatear.

Rook.—From about the middle of April the rook of last year begins to loose the feathers from the bill, so that I do not believe in the theory of the rook wearing off the feathers from the bill by boring after grubs, &c. If this be the true solution, why should they fall off at this particular time, and not before? I have long reckoned it a sign of puberty, and I think my belief is strengthened by the fact of the capistri remaining on till now. A wounded rook brought to me on the 9th of April showed a very strange malformation of the feet. Instead of walking on the phalanges, they were perfectly contracted and closed; the bird walked on the front of the ankles actively and well. On being confined to a loft for several hours he cast up pellets like those from a bird of prey: to a casual observer they would seem to be pieces of dry horse-dung: these pellets are very plentiful in rookeries. On making a minute examination of their substance, which are fibres, I came to the conclusion that they were the cuticles of the succulent roots of the couch-grass, called in Ireland "skutch" or "scootch." On shooting some rooks feeding in a field harassed by this grass I found that I was right, for there was the torn root in the ground, and pieces of it in the bills and throats of the rooks. Now, agriculturists, that a new benefit which the rook does you is laid before your eyes, will you still cry him down and wish that he was exterminated; he that helps you to do what you pay your gold to get done—helps to destroy that curse of many grounds, "skutch" grass? Will you kill him because he takes a small potato now and then? Do you give him no credit for the grubs he destroys? If he eats some bushels of your corn from the stooks (sheafs), thou selfish, perverse and blind fool, man, did he not follow your plough for months—aye, and will he not do so again—to clear your land from vermin? That very field of waving corn, with its heavy ears nodding to the wind and ripening beneath an autumn sun, which you smile on, did not he help—and bravely, too—to cleanse it for you, and thus to bring it as it is? Did you cause one seed to grow? You did not: no! a greater than you caused the grain to give forth its increase for your benefit: He also gave the bird, and He gives nothing, man, in vain. "Man in his best estate is altogether vanity:" how true, when he tries to fight against Nature, when Nature alone can be mistress, except he (man) can form a substitute to do that good which Nature's handiwork does for him. What could man substitute for the bird, the rook? We hear of poison manures being used to free the ground from insects. Absurd and fickle! with all these poisons does not the rook kill thousands still, and does he not, from gray dawn till dark, do man a service? Poor ancient headed rook! I have the heart, if not the pen, to plead for you. I examined a young rook from the nest, some days ago, having the upper mandible of the bill completely recurved, the mouth, consequently, being always open.

Siskin.—On the 27th of March I saw two siskins paired. It is very rare to meet them breeding in this county.

Shearwater.—On the 29th of March I met the first arrived shearwater. Through April and May they have been the most abundant bird in the bay, and how they can be called scarce puzzles me. They are all in the same plumage, that given by Yarrell.

Redthroated Diver.—Has been very abundant this spring till the middle of May: I procured many specimens in the several spring plumages, and several with the beautiful red throat. As the plumages of this bird will be the subject of a future letter I refrain from giving them now.

Shag.—I stated in my letter on the shag (S. S. 243) that the feathers of the upper scapulars do not moult: in their first spring they do moult *occasionally*, but *partially;* the greatest amount of these feathers change, as I said, by transmutation, and always so in second winter.

Gannet.—The gannet arrives in the Bay early in April; they are then very abundant, but, strange to say, there are always perfectly adult birds. No such thing as a young bird is to be seen; in fact, adults are always far more plentiful than young on this coast.

Arctic Tern.—Shot a beautiful adult specimen on the 18th of April. This is a very early date for a tern to be seen here. The arctic tern is giving place more and more each year to the common tern.

Purple Colour on the Breasts of Birds.—During the spring months I frequently remark that the breasts of the kittiwake gull and the common guillemot are beautifully suffused with purple. I do not think this natural, but merely a stain from some floating matter, attained in some warmer clime. The razorbill never has it, showing that they could not have frequented the same place; the much later arrival of the guillemot also denotes this. Can any reader of the 'Zoologist' tell me where the guillemot, the puffin and the razorbill go to in winter, as not one in a thousand of the first and last stay here, and none of the puffin in winter.

Ringed Guillemot.—On the 19th of April I shot an adult bird of this species in summer plumage: they are very scarce on this coast. That it is quite distinct from the common guillemot there can be very little doubt, as it is ringed at all seasons and all ages. I would believe it only a variety, when a razorbill without the white line, in summer plumage, is shown to me—a thing much more likely to happen than that the guillemot should assume, and in so many and such permanent cases, too, a white circle to the eye and the lachrymal line.

Blackthroated Diver.—After a long chase for what I thought a redthroated, I was agreeably surprised to find I had killed a blackthroated diver, and a connecting-plumage link, too—far more valuable in my eyes than an adult bird. I could see no resemblance whatever to the northern diver in its plumage, as authors state, and if it had not the black throat I should have certainly called it a redthroated diver. However, on this subject again.

Jack Snipe.—On the 2nd of May a jack snipe was shown me, shot about an hour before. The plumage was the same as in winter. The bird flew strongly, and I cannot but think that if left it would have bred, or perhaps at the time the female was sitting.

Blackheaded Bunting.—I met with this bird breeding at Ballybrack this year.

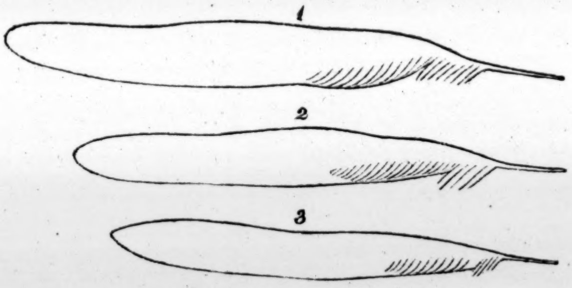
Starling.—Found a new breeding-place of this rare Irish summer bird, at Loughlin's-town, about half-a-mile from that previously mentioned. Twenty or thirty birds breed in some old timbr there.

Blackcap Warbler (Sylvia atricapilla).—On the 17th of May I saw a male example of this very rare Irish bird at Ballybrack. Not only did he erect his black crest, but he sang within a few yards of me.

Rosy Tern.—Saw large numbers of this once abundant, but now scarce, County Dublin tern, on the 19th of May.

The Claw on the Wing of the Waterhen.—There is a note in the 'Field' on the claw of the wing of the waterhen. It is not peculiar to the young waterhen, but is found alike on all the family, even the corn crake: the water rails and coots alike possess it. I always considered it the hidden means of the long submersion of these birds, substances being caught under water by it.

Distinctions of the Willow Wrens.—I tried very hard this year to add the wood wren to our Dublin Avifauna, and though I killed some dozens of snowy whitebellied willow wrens, they were all the common Sylvia trochilus. That the bird is Irish I am sure, for I have heard it. Should an Irish ornithologist see this, will he try for it, if he should live in a wooded district, such as the Counties Wicklow and Wexford. I am sure it is neglected, for want of a certain distinction: the white belly is not sure, nor is the formation of the wing, as Macgillivray says, a sufficient distinction; of his three plates I can make nothing; the green back is always pretty sure, but the second primary is an unfailing distinction, as the annexed life-sized cut will show.



No. 1. Wood Wren (*Sylvia sibilatrix*). No. 2. Willow Wren (*S. trochilus*).
No. 3. Chiffchaff (*S. rufa*).

HARRY BLAKE-KNOX.

Dalkey, County Dublin.

The Migratory and Wandering Birds of the County Dublin, with the Times of their Arrivals and Departures. By HARRY BLAKE-KNOX, Esq.

(Continued from S. S. 227).

THE WATER BIRDS.

Great Plover.—Has occurred.

Golden Plover.—Resident. Enormous flocks visit us from October.

They generally leave from the beginning of April. Have eggs early in May.

Ringed Plover.—Resident in small numbers. Appears in vast quantities from the beginning of September, and begins to leave from the end of February. Has eggs in May.

Kentish Plover.—This strangely named bird has occurred in a few instances during the migrations. It is very scarce.

Gray Plover.—Is a regular autumnal migrant, and more common in winter than believed. It has occurred occasionally late in spring in the nuptial garb.

Lapwing.—Resident. Great additions swell our native flocks during autumn, winter and spring. Arrives and departs irregularly. Eggs early in April.

Turnstone.—Common from end of August till October. Many to be met with in winter. Occurs again often in numbers during the spring migration.

Sanderling.—Very common during autumn and early winter. Arrives as early as August. Not so abundant in winter.

Oystercatcher.—Resident. Great additions in autumn and winter.

Heron.—Resident. Migrates to and fro during winter. It is then as common on the sea-shore as in the rivers.

Bittern.—Like many others, nearly exterminated, and where once plentiful is now rare.

Little Bittern.—Has occurred. Is very rare.

White Spoonbill.—Rare. Has occurred to myself.

Glossy Ibis.—Rare. Has occurred to myself.

Curlew.—Resident. Vast additions from autumn till spring.

Whimbrel.— Common in autumn and spring. Occurs also throughout the winter.

Redshank.—I do not know of the redshank breeding here. It is a common bird in autumn and winter in flocks. Arrives early in August, though I have seen it sometimes earlier: I cannot correctly state when it leaves.

Green Sandpiper.—Occurs occasionally in autumn and winter, and is perhaps not so rare as believed.

Sandpiper.—A regular summer visitor, from the beginning of May. Frequents the sea-rocks of Dalkey from the end of June till middle of September (latest).

Greenshank.—Very common in autumn, and always to be met with in winter: sometimes abundantly.

Avocet.—Has occurred; but is perhaps now a bird of the past.

Stilt.—Same remarks.

Blacktailed Godwit.—Autumnal migrant, and to be met with in winter. Not common.

Common Godwit.—Arrives in numbers from beginning of August; very abundant in September and October, and to be met with all winter.

Ruff.—Rare; has occurred during autumn and spring—in the latter season to myself.

Woodcock.—Resident; great additions in winter from the end of September. Arrives all through the winter. Migrates locally. Leaves from the end of March till middle of April.

Great Snipe.—Rare.

Common Snipe.—Resident; great additions in winter. Arrival too uncertain to state positively, but generally from September; departure equally uncertain. Residents are paired late in March and early April; this I have often noticed by the birds "towering" in the air like sky larks, and remaining in the same spot.

Winter Snipe.—Arrives in October, leaves in February. This bird, though considered as the common snipe, is widely different from it. It is totally different in markings and size; it also never breeds, to my knowledge, in Ireland, whereas the other does abundantly. Sex or season does not account for this difference. The common snipe is alike in winter and summer, and the male is similar to the female. I have also seen male and female of the brown or winter snipe, and they are similar to each other. The bird I allude to is not the brown snipe of authors (*Macrorhampus griseus*): it is known, I suppose, to every snipe-shooter as the "big snipe," the "brown snipe," the "Norway snipe," &c.

Jack Snipe.—Never heard of its breeding in Ireland. Common from October till end of March; generally solitary. May be met with in the ditches, along the east coast, before departure, in pairs. Leaves during March and early part of April. This year I saw one an hour after being shot, in the shooter's hand, on the 2nd of May.

Sabine's Snipe.—Have heard of its occurring. In other parts of Ireland it has been frequently taken, and I believe is many times eaten by non-naturalists.

Curlew Sandpiper.—Autumnal migrant; not at all plentiful, though perhaps more abundant than known.

Dunlin.—Do not know of its breeding in this county, though, from its early appearance with its fully fledged young in June (18th the earliest), I am inclined to think it does. It is very abundant from July. Have seen it as late, and in flocks, as the end of April, and many birds at this season with only one or two summer feathers on the body. In late spring, and on its first arrival in autumn, it seems to prefer rocks to the strand: at high water it frequently leaves the sand for the rocks in winter.

Little Stint.—Autumnal migrant; not often procured. May be met with also in early winter. Is undoubtedly more common than believed.

Buffbreasted Sandpiper.—Has occurred. Very rare.

Purple Sandpiper.—Common in suitable localities from beginning of October to February.

Knot.—Common from beginning of August till middle of April.

Corn Crake.—Resident. Arrives abundantly from the second week in April. Crakes, about the 20th of that month. I can give no certain time of departure; they are met with as late as October, and as I said are resident in small numbers. I see no reason for laughing at the supposition that these birds hybernate. That they migrate I am sure, for I have found them dead in the sea in spring.

Spotted Crake.—Has occurred pretty often in autumn and winter, and is, I doubt not, more common than believed.

Waterhen, Water Rail and Coot.—Resident; migrate partially.

Gray Phalarope.—Has occurred in autumn and winter; is rare.

Great Wild or Hooper Swan.—Is met with in winter; greater numbers pass over the county.

Small Wild or Bewick's Swan.—Commoner than the last. Same remarks.

Black Swan.—Has occurred in a wild state in two instances; one at Lambay, 1862.

Canada Goose.—Occurs frequently in winter and spring. These birds are so wary and hard to shoot that I do not believe that they have escaped from confinement. I have seen large flocks, easily distinguished from any other by the white cravat, by which name the bird is known to many shooters. On the Wexford coast it occurs often, and is called the "choker" goose.

Grayling or Graylag Goose.—Is rarely shot in winter, but perhaps not so rare as believed.

Bean Goose.—A regular winter visitor, and may be seen migrating south and west from the beginning of September. They generally fly high. Not one for every thousand that pass over the county alight in it.

Whitefronted Goose.—A regular winter visitor: occurs from October. Is more abundant in this county than the last. Leaves towards the middle of March.

Bernicle Goose.—A regular winter visitor from October to end of March.

Brent Goose.—A regular winter visitor from first week of September till end of April.

Egyptian Goose.—Has occurred twice to myself; a solitary individual shot December, 1862, and in January, 1863, a flock of some dozens passed along the coast to the north strand. It is generally thought that these birds have escaped from confinement. Why is their arrival more strange than that of the corn crake, &c., not to mention the belted kingfisher, the purple martin, or the yellowbilled cuckoo?

Shell or Tortoiseshell Drake.—A winter visitor; irregular in its time of arrival and departure. Breeds in Ireland.

Wild Duck.—Resident; great additions in winter.

Shoveller.—To be met with in winter.

Gadwall.—Winter visitor, and more common than believed.

Pintail.—Winter visitor.

Garganey.—Very rare. Spring.

Teal.—I have heard of its breeding, but I doubt it. Common in winter. Irregular in its migration.

Widgeon.—Very abundant in winter. Irregular.

Eider Duck.—Very rare; in winter.

King Duck.—Once shot in Ireland, and that in Kingstown Harbour.

Velvet Scoter.—May be regularly seen in the Bay every winter.

Black Scoter, Pochard and Tufted Duck.—Regular winter visitors.

Scaup Duck.—Regular winter visitor, from middle of September till end of April.

Goldeneye.—Regular winter visitor, from beginning of October till end of April.

Smew.—Occasionally to be met with on the sea in winter; is more a lake bird.

Redbreasted Merganser.—Is a regular winter visitor and breeds in Ireland.

Goosander.—Not so abundant as the last:

Great Crested Grebe.—Growing rare; breeds in Ireland still.

Rednecked Grebe.—Has been met with in winter.

Sclavonian Grebe.—Is to be met with in winter.

Eared Grebe.—Rare; has occurred in this county in June, in full nuptial dress, so was most likely breeding.

Little Grebe.—Resident; to be met with on the sea in spring.

Great Northern Diver.—Winter visitor, from beginning of October till April.

Blackthroated Diver.—Is occasionally to be met with in winter. Birds called blackthroated divers are small individuals of the great northern. The true blackthroated diver is scarcely larger than and very like the redthroated. I have shot five or six myself; the last, last April.

Redthroated Diver.—Winter visitor from beginning of October till middle of May.

Guillemot.—Is a regular summer visitant. Immense flocks arrive in the Bay from the beginning of April. Some thousands breed with us. It is again very abundant in autumn during the southerly migration. It is to be met with in small numbers from December till the spring flocks arrive again.

Ringed Guillemot.—Is to be met with in very limited numbers.

Black Guillemot.—It breeds in some localities, and is to be met with in autumn, winter and spring. I consider it a scarce bird.

Little Auk.—Occasional.

Puffin.—Regular summer visitor, and breeds on the Islands. Arrives from end of April or early in May, and leaves in September. I have shot the young as late as November.

Razorbill.—Same remarks as to guillemot, but that it arrives from the middle of March, and does not mix with the guillemot.

Cormorant.—Resident; great additions to the flocks in winter.

Shag.—Same remarks.

Gannet.—To be met with in autumn and spring in large numbers. Occasional in winter.

Swift or Ruppell's Tern.—Has been once obtained in Britain, and that in this county, near Sutton. Two others were in company with the one shot.

Sandwich Tern.—This strangely named bird is to be met with not unfrequently in summer and autumn. It still breeds in one spot on this coast, known I think to few, if any, but myself.

Roseate Tern.—Is a regular summer visitor, and breeds still in some localities known to me. It used to be commoner than either of the two next named, till some shooters and egg-baggers, or oologists (so they style themselves) came to their breeding haunt, the Island of Rockabill, slaughtered hampers full of the then breeding birds, and carried away indiscriminately all the eggs they could find. The consequence is this ornament to the coast is lost, and Rockabill is now a desert rock. I consequently treasure my few pairs of rosy terns, and nothing would tempt me to shoot or take an egg of either the Sandwich or rosy tern in summer. It is often very common in autumn; this was the case last September.

Common Tern.—A regular summer visitor from middle of May. It leaves in October. Is very common.

Arctic Tern.—Is a regular summer visitor from end of April till October. Not so common as the last.

Whiskered Tern.—Has in one instance been procured in Dublin, in 1846, by Mr. M'Coy: it was placed in the collection of Mr. T. W. Warren, of Dublin.

Little Tern.—Visits us in spring and autumn; it is never very abundant. Breeds in very small numbers.

Black Tern.—Is of occasional occurrence.

Whitewinged Black Tern.—Has occurred twice in Ireland, and both times at the mouth of the Liffey. First shot in October, 1841, by Mr. M'Coy; second, by a Mr. Massey.

Noddy Tern.—Has occurred to myself; is very rare.

Sabine's Gull.—Very rare; has only been met with three times, in Dublin waters; the last shot by myself, as recorded in the pages of the 'Zoologist.'

Little Gull.—Very rare; I have seen it.

Bonaparte's Gull.—Very rare; I shot one in the Bay, in July, 1864: another is recorded in the 'Zoologist' (Zool. 4762) as occurring off Skerries, which is in this county.

Brownheaded Gull.—Resident in some numbers: very plentiful from July till March.

Masked Gull.—Birds measuring the same as the masked gull occur, with the brown head. In spring and autumn I have often seen gulls with the mask.

Kittiwake.—A regular summer visitant from middle of March; many remain all winter.

Ivory Gull.—I cannot positively say I know this gull in this county, though I have seen a gull once or twice so gannet-like in appearance that I could not but think them ivory gulls.

Common Gull.—To be met with all the year round; in great numbers in winter. Adults in summer dress are rare in spring and summer, and even the young are scarce in the early part of summer.

Herring Gull.—Resident; very common during winter from September till April. They are not so plentiful in summer.

Lesser Blackbacked Gull.—The summer gull of this county. Arrives stragglingly in March; is very abundant from April, grows scarce from October, and is rare in winter. Breeds.

Great Blackbacked Gull.—Resident; more abundant in spring; in stormy weather, in winter, many are driven into the Bay.

Iceland Gull.—Stragglers to be seen every winter, chiefly in the cream-colour dress.

Glaucous Gull.—Same remarks, but rarer than the last.

Skua.—Not uncommon in autumn. None of the skuas are to be seen in spring,

Pomerine Skua.—Some autumns the commonest of its family: to be met with every autumn.

Richardson's Skua and Longtailed or Buffon's Skua.—Common in autumn.

Fulmar Petrel.—I only know of it occurring once, and that an adult, on the north strand.

Great Shearwater.—Occasional in spring and autumn.

Shearwater.—One of the commonest birds of the Dublin waters in April and May, to be met again in autumn in numbers. Stragglers during winter. Breeds.

Forktailed Petrel.—Has occurred.

Storm Petrel.—Is to be met with occasionally.

This list of sea-birds, I think, will make up for the great deficiency in our land Avifauna, and is one that no county need be ashamed of. It comprises one hundred and twenty-one species. Thus, leaving out the mealy redpole, the Avifauna of the County Dublin consists of two hundred and eighteen species.

HARRY BLAKE-KNOX.

Dalkey, May 22, 1866.

Errata.—In my former paper there are the following misprints:—Page 224, under blackheaded bunting, read "In Mayo;" not "in May." Page 226, under starling, read "Ballybrack," not "Ballybrook." I have also made a serious error myself: under swallow, read "Summer visitor from the second week in April," instead of "from the end of April."—*H. Blake-Knox.*

Honey Buzzard in North Devon.—Mr. Vingoe received from North Devon yesterday a fine specimen of the female honey buzzard. There was a chain of eggs in the ovary, but whether they would have been laid this year is doubtful. The upper plumage from the head to the upper tail-coverts is of an uniform hair-brown colour, excepting only on the nape of the head and neck, where this colour is somewhat broken with white; the chin, breast and belly are dull white, with thickly spread longitudinal patches of hair-brown. The tail has the first transverse bar at the centre, with two others less distinct upwards; the other parts of the tail marbled with two shades of brown transversely; the under part of the tail very light in colour: there is no shade of blue about the head.—*Edward Hearle Rodd; Penzance, June* 2, 1866.

Great Gray Shrike in Wiltshire.—Since I announced in the 'Zoologist' for May (S. S. 228) the occurrence of Lanius excubitor in Wiltshire, I have received information of two further captures of the same bird; one on the borders of the county, or, to speak more accurately, just within a neighbouring county, and the other on the 2nd of this month, in the parish of Road, which has derived so unenviable a notoriety from the foul murder committed there some years since. Whether the great gray shrike is unusually numerous in England this year, or whether it is exceptionally common in Wiltshire just now, I have no means of knowing; but it is certainly not a bird to escape notice when seen by the least observant; and I have never before had my attention called to so many captures of it within a short space of time in this county.—*Alfred Charles Smith; Yatesbury Rectory, Calne, May* 26, 1866.

Curious Position of a Blackbird's Nest.—A blackbird has this season built its nest in a somewhat curious place. A rustic arbour lately made in our garden, and composed of twisted pieces of "barked" oak, is placed against the south wall. The bird has built its nest between the brick wall and the pole which supports the roof, and being on a level with the seat, indeed partly resting on it, it is quite open to the gaze of anyone who may enter. Whilst it was still sitting on its unhatched eggs the oak was being painted, but though the brush must have often almost touched the nest, the poor bird never left it during the operation, and she is now rearing three young birds in security. She has become a favourite even with the gardener, who is one of a race of men not generally prepossessed in favour of the thrush family.—*J. A. Harvie Brown; Dunipace House, Falkirk, May* 25, 1866.

Golden Oriole in Suffolk.—On the 28th of April last a splendid mature female of the golden oriole passed into my hands for preservation. It had been shot a day or two previously in the vicinity of Chediston, near Halesworth, in Suffolk. Its stomach was filled with the remains of insects and some berries—apparently those of the yew.—*T. E. Gunn; 3, West Pottergate, Norwich.*

Arrival of Migrants.—Tuesday, April 17, 1866. I saw two wheatears on Blackheath; one among the furzes at the N.E. corner of the Heath; and the other, a fine male in splendid plumage, to the S.W. of the tumulus. 18th. At 6 P.M. I saw an old swallow fly due north across the Heath and over Greenwich Park; his flight was steady and strong, and as straight as an arrow. 19th. Saw one redstart on the iron rails round the Deodara, in Greenwich Park. 23rd. Strolled round the S.W. face of Shooter's Hill: many willow wrens were busily flying to and fro the wood and fields: saw one whinchat and one redstart alternately take possession of the elevated stump of an old whin; down went the whinchat to seize its prey, up went the redstart; the moment he darted down, up went the whinchat: concealed behind the hedge I watched them through a glass for some time. I saw one nightingale feeding amicably with a robin along the hedge-bottom. I saw but one swallow hawking about the Hill. 24th. Saw two house martins with about half-a-dozen swallows hawking over the upper long pond in Blackheath Park. 26th. In the evening saw one swallow take a turn or two under the lee of the gravel-pit by Greenwich Park wall, and then off north. 27th. In a walk by Kidbrooke through the fields towards Eltham and round by Shooter's Hill Wood, I saw eight whitethroats, one tree pipit, two whinchats, three swallows (two located at Well Hall and one on its passage), and but two willow wrens (the numbers I saw on the 23rd were dispersed). May 4th. The redstart in Greenwich Park had picked up a wife, and comfortable enough they looked: I noticed a few house martins about the houses. 5th. Walked through the fields to Eltham: saw a few whitethroats, one building: loitered about Eltham; saw neither swallow, martin nor swift: a cold, showery, windy day. 6th. On Sunday evening I saw two flycatchers on the rails by the upper long pond in Blackheath Park, evidently just arrived. 7th. To Eltham, where I saw no swallow, no martin and no swift; walked by the old Palace to the new railway bridge near Mottingham: saw two flycatchers on the rails and paling under the fine old trees in Eltham Park: saw one house martin making a rapid north-east passage along the new railway: the whitethroats settled down, building and making love: a warm day. 10th. At the north-east gravel-pits on the Heath I counted fourteen house martins careering in the last rays of the setting sun. I was now taken ill, laid up, and could not continue my daily observations. Having requested a person living by Eltham Church to keep a look out for the swifts, who build in the roof of his house, he told me they came on the 10th of May. On the 9th of June I counted seven swifts hawking about Eltham Church. It is pleasant to sit in Eltham churchyard, admire its beautiful plants, and watch the unrivalled flight of the swifts as they dash round the church and soar above its steeple. I seldom pass through without reading this favourite epitaph:—

"Here lie the remains of
WILLIAM AND MARY.
Their souls are out of prison let,
It was Christ alone that paid the debt,
Their sins were not a few:
Reader believe in Christ,
And He will pay for you."

Of these mysterious persons I can learn nothing. If the divinity inside the church be as sound, no wonder the swifts delight to build in so sacred an edifice.—*Matthew Hutchinson; Blackheath, S.E., June* 11, 1866.

Arrival of Hirundines at Looe, Cornwall.—On the 2nd of April I saw seven or eight swallows and a sand martin hawking over a large fish-pond, where I have first seen them for many years past. I did not see any again until the 12th, which was two days later than I first saw any last year. Martins did not make their appearance until the 30th, on which day I also saw, for the first time, seven swifts; the wind was easterly and very cold at the time, but during the past week we have had warm weather, wind from the south-west. On the 2nd of May I think I may say I saw the arrival of a large body of swallows and martins: on passing the pond before mentioned, about 10 A. M., I could not see a single specimen of either, but on my return that way in less than half-an-hour there were hundreds, both of swallows and martins, apparently weak on the wing: some were pitched on the reeds and shrubs surrounding the pond, whilst others came so close to me, where I was sitting on horseback watching them, that friend who was with me became quite excited in endeavouring to knock them down, as he said, "for the sake of being able to say so," that is, with his closed umbrella; but he did not succeed in his endeavours.—*Stephen Clogg; Looe, May* 10, 1866.

Starling hawking for Flies.—On one of the few warm and still days we had in the course of last month, I observed two or three starlings together hawking for flies, at a considerable height from the ground. There could, I think, be no doubt as to their occupation: they were rising and falling in the air with almost motionless wings, their actions very much resembling those of the house martin when similarly engaged. This is not the first time I have seen starlings so employed, though I do not remember to have ever seen it noticed anywhere.—*Gerard Barton; Sunderhall Grange, Wymondham.*

Redwinged Starling (Sturnus predatorius) *in Scotland.*—A fine male specimen of the above rare visitant to this country was shot, on the 12th of June, by Mr. A. Rannie, of Greenlaw, in his garden at Mill of Boyndie, about two miles from the town of Banff. It was picking at the apple-blossom, when it drew Mr. Rannie's attention by its call of "chuck chuck." Although the patch on the wing, a bright orange-red one, is somewhat interrupted by a few very small darker feathers, and the bird otherwise being mixed here and there with some narrow gray streaks, still it is a very pretty one. —*Thomas Edward; Banff, June* 15, 1866.

Cuckoo sucking Eggs.—A partridge's nest containing fourteen eggs was found in a wood contiguous to the vicarage land, on the 12th of May, by some persons employed in felling timber. On the morning of the 14th the nest was again visited: there were then only seven eggs. On watching the nest, which was under a stub on a bank, a cuckoo was seen to go into it twice, and on a search being made the shells were found, where I myself saw them, three or four yards below the nest, under the branches of a felled tree, the eggs having evidently rolled down, when brought out of the nest by the cuckoo, to that spot where she had broken them and eaten their contents. I never before heard of cuckoos eating partridge's eggs; if they are in the habit of doing so they are as destructive to game as hawks.—*H. T. M. Kirby; Mayfield Vicarage, Sussex, May* 19, 1866.

Association for Reducing the Number of Wood Pigeons.—I am directed by this Association to annex a Report of its proceedings during the past year. The Members of the Association at the same time directed me to solicit your aid and co-operation in promoting the object in view, and they humbly hope you will be pleased to give direction for at least such a partial reduction in number of the wood pigeons upon your estates as may be readily attained.—*Thomas Hunter, Secretary; Kelso, 25th March.*

[This address has been widely circulated. As many of my readers are not pledged to the destruction of the beautiful bird to which it refers, may I ask them to supply me with a report of their observations on the food of the wood pigeon. My own experience gives this bill of fare:—turnip-tops, holly-berries, rowans, hips, haws, charlock (seeds, leaves and flowers). Now that the destruction of the species is meditated, it seems worth our while to inquire what is the injury done by the accused.—*Edward Newman.*]

Little Bittern at Scilly.—I was presented yesterday, by Mr. Smith, of Trescoe Abbey, with a very beautiful adult male specimen of this little heron, in the highest possible perfection of plumage, and with the neck-ruff much fuller and bittern-like than any specimen I had seen before or in any representation of the bird in books. Its length is exactly 15¼ inches. I am very glad that I ascertained its weight, no reference having been made to its weight by any ornithological author in my library. Its weight was exactly three ounces, and there was no waste from loss of blood or mutilation. The bird was, contrary to any of the Ardeidæ that I have handled, full of flesh, with some fat on the breast; so that, when in low condition (probably its average state) it would not exceed 2¼ or 2½ ounces. It was observed on the banks of the large pool near the Abbey on Trescoe Island, where there is an abundance of sedge and covert adapted to the economy of the heron tribe. The sex was quite apparent on dissection; the diminutive size of the body was quite remarkable, not exceeding that of a missel thrush.—*Edward Hearle Rodd; Penzance, June* 14, 1866.

Temminck's Stint at Rainham.—On the 22nd of May last my brother, G. E. Power, found a Temminck's stint frequenting the marshes in the neighbourhood: after some trouble he succeeded in shooting it, an adult female in plumage intermediate between that of summer and winter. Again on the 25th of the same month he succeeded in obtaining another, also a female: this latter had nearly attained its summer plumage. We have now obtained five of these comparatively rare stints during the last ten months; all within a radius of about a quarter of a mile. They are, however, the only birds of the genus that have been heard of in the neighbourhood.—*W. H. Power; City of London Hospital for Diseases of the Chest, Victoria Park, N.E., June* 5, 1866.

Late Stay of the Snipe.—On the 22nd of May my brother flushed and killed a full snipe, on the marshes near Rainham. It proved a female in good condition and forward in egg, some being about the size of peas. I am sure that snipe breed in Sussex and Hampshire, but have never heard of their remaining to breed in this locality. It is possible, however, and not improbable, that some breed near at hand, since I have found them during every month in the year except June; the latest stay in the spring being the date above mentioned, and the earliest return in the autumn, the 20th of July.—*Id.*

Nest within Nest.—An over-year's nest of the blackbird was obtained in this neighbourhood during the present season, in the interior of which a pair of industrious titmice had constructed a nest for themselves and laid several eggs.—*T. E. Gunn; Norwich.*

Muller's Topknot and Streaked Gurnard at Penzance.—I have had brought to me to-day Muller's topknot, and I have taken this morning two specimens of the streaked (also called the "French" and "rock") gurnard, all from Mount's Bay. These fish are so far from exceptional here (I have myself taken forty-eight specimens of the former and twenty-nine of the latter since 1858) that I should not have noted them to you, but that both are classed among the rarer British fishes.—*Thomas Cornish; Penzance, May* 31, 1866.

Sturgeons off the Coast of Norfolk and Suffolk.—Two splendid examples of the sturgeon have been captured off the coast of these two counties, one on the 10th and the second on the 19th of May. The former was taken in Holkham Bay by the "Premier" steam-trawler, and was immediately sent as a present to his Royal Highness the Prince of Wales, by Mr. J. A. Beeching, of Wells. His Royal Highness graciously accepted and acknowledged it. This specimen measured 8 feet 6 inches in length, and weighed 210 lbs. The second example was caught off Lowestoft, in Suffolk, and exhibited at Messrs. Weaver's stall in our fish-market: it measured 8 feet long, and weighed 168 lbs.—*T. E. Gunn.*

Bloch's Gurnard (Trigla Blochii) *in the Moray Firth, at Banff.*—An example of this gurnard (or, as we call them, "crunacks") was captured here in a rock-pool, a few days ago. It had by some means or other come pretty close in shore during high-water mark, and, it would appear, had got entangled amongst the rocks, so that it had been unable to make its way out again with the receding tide. The pool, though not deep, was pretty large, so that it took a considerable time, and not a little trouble, before the capture was made. So much so, in fact, was this the case that if it had not been a rarity, I should most certainly have given in and acknowledged myself beaten long before my object was accomplished, for between water and perspiration I was in a pitiable plight by the time I gained the victory. As it was, however, I was well repaid in the end, besides the fun—that is, if there is any other person than myself so foolish as to call splashing up to the shoulders and eyes amongst brine, sea-weed and slippery rocks, "fun." Although the fish is not large it is a splendidly marked specimen. In the water, and whilst shooting across and athwart the pool, its bright colours had a most beautiful appearance. The spot on the first dorsal is rather of a dark purplish colour than black, and very conspicuous when the animal is swimming. I am not aware of the species ever having been detected on this part of the coast before. It is not mentioned in the "List of the Fishes of the Moray Firth," by the Rev. Dr. Gordon, of Birnie, in the 'Zoologist' for May and June, 1852.—*Thomas Edward; Banff, June* 15, 1866.

The Calamary on the Coast of Norfolk.—An example of this species of cuttle-fish (*Loligo vulgaris*) was captured on the coast of Cromer during the early part of March last. It measured between three and four feet in length.—*T. E. Gunn.*

The "Bacca-Box" (Panopæa norvegica) *at Macduff, near Banff.*—Some time ago a mutilated specimen of that rare shell in this country known as the "bacca-box" or "gaper," was brought me from Macduff, amongst some other old shells. It had been brought in from deep water by some of the fishermen, and had been carelessly trodden on. A little patience and labour, however, has done much to make it a passable specimen, when and where no better can be got: it is also a dead and worn one, still it shows the species is in the Moray Firth.—*Thomas Edward; Banff, June* 15, 1866.

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DICTIONARY OF BRITISH BIRDS.

(*Continued from page* 2.)

Birds'; in 1846 a second edition, and in 1856 a third and final edition; in these three editions that amiable and most painstaking author added, from various sources, no less than fifty species. The 'Zoologist' has added seventeen species to those mentioned by Montagu, Selby and Yarrell: and here it is but fair to those gentlemen who have made their discoveries known through the medium of that journal, to state that many of Yarrell's species were first published in the 'Zoologist,' and thence transferred to the 'History,' but I give the credit of such additions to the latter work, on account of its systematic character. From these three sources are derived the whole of my editorial additions, which are invariably inserted between brackets, and thus clearly distinguished from the original text. The descriptions of these added species are extracted from the works of Temminck, Selby and Yarrell, are marked by inverted commas, and accompanied by a reference to the volume and page.

4. Immediately after the name I have inserted a reference to a figure of the *bird* and a figure of the *egg*: these references are added both to the original and the new descriptions. For this purpose I have selected Yarrell's 'History of British Birds' and Hewitson's 'Oology,' works which are at present—and for the next half century will certainly continue—our standard authorities: these interpolations are also enclosed in editorial brackets: the Dictionary thus forms a complete Index to both the 'History' and 'Oology'—an Index that was greatly needed, more especially in the case of the 'Oology.'

EDWARD NEWMAN.

9, Devonshire Street, Bishopsgate,
May 30, 1866.

THE NEW SILKWORM, feeding on the leaves of the Ailanthus Glandulosa (tree), Sumach, Laburnum, Teazle, Poterium Sanguisorba (or Burnet), Scorzonera, Castor-oil Plant, &c., &c.

Eggs of this interesting and magnificent Bombyx (Attacus Cynthia) may be now obtained from Dr. Wallace, Colchester, Essex.

Price per score, 1*s*.; per 50, 2*s*. 6*d*.; per 100, 4*s*.; per 500, 15*s*.; per 1000, 25*s*., &c.

N.B.—The eggs hatch in from ten to twenty days' time after being laid, according to temperature.

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MR. BROWN, King's Parade, Cambridge, begs to inform Entomologists that he has arranged with some deserving Collectors, in the several counties of Cambridge, Huntingdon, Norfolk and Suffolk, to collect some of the rarer Species of Lepidoptera, such as T. Pruni, H. Paniscus, M. Arundinis, A. Rubricata, C. Sagittaria, Z. Grisearia, C. Ocularis, A. Strigosa, M. Flammea, N. Hellmanni, A. Sulphuralis, N. Cilialis, P. Margaritalis, S. Sticticalis, &c., &c.

These insects, when collected, will be disposed of at prices proportional to the expense incurred.

Upon application a list will be forwarded.

Cambridge, June 21, 1866.

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